

REMARKS

This Amendment, submitted in response to the Office Action dated August 25, 2008, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested based on the following analysis.

1. Summary of Non-Final Office Action

The abstract of the disclosure is objected to because of alleged informalities.

Claims 11 and 12 are objected to because of alleged insufficient antecedent bases.

If claim 30 is found allowable, claims 34-38, 44, 45, 47 and 48 will be objected under 37 C.F.R. § 1.75 as allegedly being substantially duplicative.

Claims 1-3, 5, 6, 12, 30, 31, 34-38, 44, 45, 47 and 48 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada et al. (US 2002/0080213; hereafter “Shimada-1”) in view of Sato et al. (US 6,845,920; hereafter “Sato”).

Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada-1 as modified by Sato as applied to claim 2, and further in view of Ohashi (US 5,594,482).

Claims 13 and 15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada-1 as modified by Sato as applied to claim 12, and further in view of Hashizume (JP 11-157073).

Claims 16 and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada-1 as modified by Sato as applied to claim 12, and further in view of Shimada et al. (US 6,502,928; hereafter “Shimada-2”).

Claim 21 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada-1 as modified by Sato as applied to claim 12, and further in view of Usui et al. (US 6,033,058).

Claims 7-11, 14, 17-19, 22-29, 33, 39-43, 46 and 49-61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

2. Objection to Specification - Abstract

In this Amendment, Applicant amends the abstract to be consistent with the requirements of MPEP § 608.01(b), and respectfully requests withdrawal of the objection.

3. Claim Objections

The Examiner objects to claims 11 and 12. Applicant believes, however, that the objections are drawn only to claim 12 because the objected languages “connection portions”, “connection wiring” and “lower electrode” as allegedly lacking antecedent bases are only recited in claim 12.

With regard to the languages “connection portions” and “connection wiring”, Applicant adds a further definition to the claim by reciting that the connection portions [is] used for connection with connection wiring through which the piezoelectric elements are driven. Support for this amendment can be found at least in paragraph 98 of the specification as filed.

With regard to the “lower electrode”, the Examiner asserts that this language should be amended to the “lower-electrode lead electrode”. However, claim 12 specifically recites a structure in which the connection wiring 130 is connected to the lower electrode 60 without the mediation of lower-electrode lead electrodes (e.g., FIGS. 1-2). Accordingly, Applicant submits that no amendment is necessary in this regard.

4. Claim Duplication

As claim 30 is amended and claims 34-38 are canceled in this Amendment, Applicant respectfully submits that claim 30 is further distinguished from claims 44, 45, 47 and 48.

5. Prior Art Rejection under 35 U.S.C. § 103(a)

In this Amendment, Applicant cancels claims 1-5, and instead, amends claim 6 by incorporating part of the features of claim 1.

The Examiner rejects claim 6, however, as allegedly being taught or suggested by paragraph 157 of Shimada-1. Applicant respectfully disagrees because the cited part of Shimada-1 only discloses that the elastic film 50 has a compression stress. The disclosure of the cited part does not teach or suggest that the sum of stress of the insulating film and stress of the upper electrode is compressive. In particular, the elastic film 50 does not correspond to

any of the insulating film and the upper electrode as recited in the claim. That is, the elastic film 50 is not an insulating film and does not teach or suggest that it covers at least pattern regions of the respective layers constituting the piezoelectric elements.

Thus, Applicant respectfully submits that claim 6 as amended should be allowable over the cited references.

Claims 7-11 should be allowable at least due to their dependencies and additionally recited elements therein.

Claim 12 is also amended by incorporating part of the features of claim 1.

The claimed invention is rejected as allegedly being taught or suggested in paragraph 171 and FIGS. 1-2 of Shimada-1. However, the cited parts do not teach or suggest that the claimed structure in which the pattern region of the upper-electrode lead electrodes is covered with an insulating film. That is, while the claimed invention recites that an insulating film covers (i.e., is formed on) the upper-electrode lead electrodes, the cited reference only shows that the lead electrode 100 is formed on the insulating layer 90.

As described above, Shimada-1 discloses an ink-jet head structure completely different from that of the claimed invention. Accordingly, Applicant respectfully submits that claim 12 as amended should be allowable over the cited references.

Claims 13-29 should be allowable at least due to their dependencies and additionally recited elements therein.

Claim 30 is amended by changing the claim dependency.

Claims 31 and 32 are canceled.

Claim 33 is also amended by incorporating part of claim 31, and should be allowable at least for similar reasons for claims 6 and/or 12.

As noted above, claims 34-38 are canceled.

Claims 39-61 should be allowable at least due to their dependencies and additionally recited elements therein.

6. Allowable Claims

Applicant respectfully requests the Examiner to hold the rewriting of the allowable claims in abeyance until the arguments presented with respect to rejected claims have been reconsidered.

7. New Claims

Applicant adds new claims 62-64 to more fully cover the present application based on the original disclosure. Entrance and allowance of the new claims are respectfully requested.

8. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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23373

CUSTOMER NUMBER

Date: November 25, 2008